RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/776,705B

DATE: 06/19/2003
TIME: 10:34:

Input Set : A:\1010 SEQ LISTING.TXT
Output Set: N:\CRF4\06192003\I776705B.raw


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  4 <110> APPLICANT: Karl GUEGLER et al.
  6 <120> TITLE OF INVENTION: ISOLATED HUMAN TRANSPORTER PROTEINS,
  7       NUCLEIC ACID MOLECULES ENCODING HUMAN TRANSPORTER PROTEINS,
  8       AND USES THEREOF
 10 <130> FILE REFERENCE: CL001150
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 13 <141> CURRENT FILING DATE: 2001-02-05
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 16 <151> PRIOR FILING DATE: 2000-12-08
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RAW SEQUENCE LISTING DATE: 06/19/2003
PATENT APPLICATION: US/09/776,705B TIME: 10:34:20

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72         35                  40                  45
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77 Asp Tyr Ala Asp Glu His His Pro Gly Thr Thr Ser Phe Gly Met Ser
78 65                  70                  75                  80
80 Ser Phe Asn Leu Ser Asn Ala Ile Met Gly Ser Gly Ile Leu Gly Leu
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84             100                 105                 110
86 Leu Ala Val Ala Ile Leu Ser Leu Tyr Ser Val His Leu Leu Leu Lys
87         115                 120                 125
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99             180                 185                 190
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102         195                 200                 205
104 Ile Ile Leu Pro Leu Ser Leu Leu Lys Asn Leu Gly Tyr Leu Gly Tyr
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114             260                 265                 270
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117         275                 280                 285
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122 Ser Leu His Asp Ser Gly Val Glu Tyr Glu Ala His Ser Asp Asp Lys
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Input Set : A:\1010 SEQ LISTING.TXT
Output Set: N:\CRF4\06192003\I776705B.raw

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110 Tyr Ser Glu Leu Lys Asp Arg Ser Arg Arg Lys Met Gln Thr Val Ser
111         355                 360                 365
112 Asn Ile Ser Ile Thr Gly Met Leu Val Met Tyr Leu Leu Ala Ala Leu
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114 Phe Gly Tyr Leu Thr Phe Tyr Gly Glu Val Glu Asp Glu Leu Leu His
115 385                 390                 395                 400
116 Ala Tyr Ser Lys Val Tyr Thr Leu Asp Ile Pro Leu Leu Met Val Arg
117                 405                 410                 415
118 Leu Ala Val Leu Val Ala Val Thr Gln Thr Val Pro Ile Val Leu Phe
119             420                 425                 430
120 Pro Ile Arg Thr Ser Val Ile Thr Leu Leu Phe Pro Lys Arg Pro Phe
121         435                 440                 445
122 Ser Trp Ile Arg His Phe Leu Ile Ala Ala Val Leu Ile Ala Leu Asn
123     450                 455                 460
124 Asn Val Leu Val Ile Leu Val Pro Thr Ile Lys Tyr Ile Phe Gly Phe
125 465                 470                 475                 480
126 Ile Gly Ala Ser Ser Ala Thr Met Leu Ile Phe Ile Leu Pro Ala Val
127                 485                 490                 495
128 Phe Tyr Leu Lys Leu Val Lys Lys Glu Thr Phe Arg Ser Pro Gln Lys
129             500                 505                 510
130 Val Gly Ala Leu Ile Phe Leu Val Val Gly Ile Phe Phe Met Ile Gly
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153 ccatgtttag aaacaacta caggcaagtt atgacacttg tttcacagaa caagatgaaa 780
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/776,705B

DATE: 06/19/2003
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Input Set : A:\1010 SEQ LISTING.TXT
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180 tttaagtaac aagctaaaaa cagaaaccgt caatagtggt tgctgctggg aagtgagact 1000
181 ggtactgtgt gaagaatgag gaaaaccttt gtactccatt agtgagttcc tttttttctt 1050
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RAW SEQUENCE LISTING
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DATE: 06/19/2003
TIME: 10:34:20

Input Set : A:\1010 SEQ LISTING.TXT
Output Set: N:\CRF4\06192003\I776705B.raw

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VERIFICATION SUMMARY DATE: 06/19/2003
PATENT APPLICATION: US/09/776,705B TIME: 10:34:21

Input Set : A:\1010 SEQ LISTING.TXT
Output Set: N:\CRF4\06192003\I776705B.raw

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/895,041C

DATE: 06/19/2003
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4 SHU-PEI, WU
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6 <130> FILE REFERENCE: US-2814-CHN
7 <140> CURRENT APPLICATION NUMBER: US 09/895,041C
8 <141> CURRENT FILING DATE: 2001-06-29
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39 <213> ORGANISM: Escherichia coli
40 <400> SEQUENCE: 2
41 atgtttcaaa aagttgacgc ctacgctggc gacccgattc ttacgcttat ggagcgtttt 60
42 aaagaagacc ctgcgcagga caaagtgaat ttaagtatcg gtctgtacta caacgaagac 120
43 ggaattatic cacaactgca agcgctggcg gaggcggaag cgcgcctgaa tgcgcagcct 180
44 catggcgctt cgctttattt accgatggaa gggcttaact gctatcgcca tgccattgcg 240
45 ctgctgctgt ttggtgcgga ccatccggta ctgaaacaac agcgcgtagc aaccattcaa 300

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/895,041C

DATE: 06/19/2003
TIME: 10:32:23

Input Set : A:\AP09895041JUN1003.txt
Output Set: N:\CRF4\06192003\I895041C.raw

```
 80 accettaatg gctccggggc attgaaaagtg ggcgcggatt tcctgaaaacg ctacttcccg    360
 32 gaattaaaag tctgggtcag cgatcctacc tgggaaaacc acgtagcaat attcgcccgg    420
 84 gctaaatt g aaqtgagtac ttacccctgg tatgacgaag cgactaacgg cgtgcgcttt    480
 36 aattacttct tgacgacgct gaaaacatta cctgcccgca gtattgtgtt gctgcatcca    540
 88 tgttccaaca acttaacggg tgccgatctc actaatgatc agtgggatgc ggtgattgaa    600
 40 attttcaaag ccttcgagct tattccattc ctcgatattg cctatcaagg atttggtgcc    660
 92 agtatgaaag agttgccta cgctattcgc gccattgcca gcgctggatt acccgctctg    720
 44 ttgaacaatt tgttctcgaa aatttttctcc ctttacggcg agcgcgtcgg cggactttct    780
 96 cctatgatag aaattgccga agccgctggc cgcgtactgg ggcaattgaa agcaacagtt    840
 48 acttcaattt atttcagccc gccgaatttt ggtgcgcagg tggtggctgc agtgctgaat    900
100 aaaaaaaaat tcaaagccag ctggctggcg gaagtagaag agatgcgtac tcgcattctg    960
152 ttatttttcc aaaaattggt gaaggtatta agcacagaga tgccagaacg caatttcgat   1020
204 tattttttta aaagcgcgg catgttcagt tataccggtt taagtgccgc tcaggttgac   1080
256 cgattattg aaaaatttgg tgtctatctc atcgccagcg gtcgcatgtg tgtccccggg   1140
308 ttaaaaaggt cgaaatgtaca acgtgtggca aaggcgtttg ctgcggtgat gtaatgctc   1199
```

111 <210> SEQ ID NO: 3
112 <211> LENGTH: 14
113 <212> TYPE: DNA
114 <213> ORGANISM: Escherichia coli
115 <400> SEQUENCE: 3
116 [illegible] .4
117 <210> SEQ ID NO: 4
118 <211> LENGTH: 20
119 <212> TYPE: DNA
120 <213> ORGANISM: Escherichia coli
121 <400> SEQUENCE: 4
122 ctaagaatcc tcgtgcatta 20
123 <210> SEQ ID NO: 5
124 <211> LENGTH: 20
125 <212> TYPE: DNA
126 <213> ORGANISM: Escherichia coli
127 <400> SEQUENCE: 5
128 ggctcgtata atgtgtggaa 20
129 <210> SEQ ID NO: 6
130 <211> LENGTH: 18
131 <212> TYPE: DNA
132 <213> ORGANISM: Escherichia coli
133 <400> SEQUENCE: 6
134 gccattgccg cgctgctg 18
135 <210> SEQ ID NO: 7
136 <211> LENGTH: 14
137 <212> TYPE: DNA
138 <213> ORGANISM: Escherichia coli
139 <400> SEQUENCE: 7
140 ccaacgcgtt gcgg 14
141 <210> SEQ ID NO: 8
142 <211> LENGTH: 14
143 <212> TYPE: DNA
144 <213> ORGANISM: Escherichia coli

RAW SEQUENCE LISTING DATE: 06/19/2003
PATENT APPLICATION: US/09/895,041C TIME: 10:22:23

Input Set : A:\AP09895041JUN1003.txt
Output Set: N:\CRF4\06192003\I895041C.raw

161 <400> SEQUENCE: 9
162 tccatgacgc ttattaccaa cctc 24
165 <210> SEQ ID NO: 9
166 <211> LENGTH: 1199
167 <212> TYPE: DNA
168 <213> ORGANISM: Escherichia coli
170 <400> SEQUENCE: 9
171 atgtttcaaa aagttgacgc ctacgctggc gacccgattc ttacgttcat cgagcgtttt 60
173 aacgaagacc ctgcagcgga caaagtgaat ttaagtatcg gtctgtacta caacgaagac 120
175 cgaattatcc cacaactgca agccgtggcg gaggcggaag cgcgcctgaa tgcgcagcct 180
177 catggcgtct cgtttattt aacgatggaa ggcttaact gctatcgcca tgccattgcg 240
179 cgctgctgt ttgctgcgga ccatcgggta ctgaaacaac agcgcgtagc aacccattaa 300
181 acctttgcag gttccgggc attgaaagtg ggcgcggatt tcctgaaacg ctacttcccg 360
183 gaatcaggcg tatgggtcag cgatctacc tgggaaaacc acgtagcaat attgccggg 420
185 gctggattcg aagtgagtac ttaccgctgg tatgacgaag cgactgacgg cgtgcgcttt 480
187 aatgacctct tgcgcacgct gaaaacatta cctgccgcca gtattgtgtt ggtgcatcca 540
189 tgttccaca accaacgcg tgccgatctc actaatgatc agtgggatgc ggtgattgaa 600
191 attctcaaag ccgcgcagct tattccgatc ctcgatattg cctatcaagg attcggtgcc 660
193 ggtattgaag aggatgccta cgctattcgc gccattgccg gcgctggatt agccgctctg 720
195 ctgagcaatt cgttctcgaa aattttctcc ctttacggcg agccgctgcg cgacttttct 780
197 ttttgtgtg cagaccccga agccgtggc cgcgtactgg gcgaatttgaa agcaacagtt 840
199 cgccgcaact acgccagccc gccgaatttt ggtgcgcagg tgctgcctgc agtgctgaat 900
201 gacgaggcat tgaaagccag ctggctggcg caagtagaag agatcgctac tcgcatttct 960
203 gcaatgcgtc aggaattggt gaaggtatta agcacagaca tgccagaacg caatttcgat 1020
205 tatctgctta atcagccgcg catgttcagt tataccggtt taagtccgcc tcaggttgac 1080
207 cgactacgtg aagaatttgg tgtctatctc atcgccagcg gtcgcatgtg tatcgccggg 1140
209 ttaaatacgg caaatgtaca acgtgtgtca aaggcgtttg ctgcggtgat gtaatgctc 1199
212 <210> SEQ ID NO: 10
213 <211> LENGTH: 397
214 <212> TYPE: PRT
215 <213> ORGANISM: Escherichia coli
217 <400> SEQUENCE: 10
219 Met Phe Gln Lys Val Asp Ala Tyr Ala Gly Asp Pro Ile Leu Thr Leu
220 1 5 10 15
223 Met Glu Arg Phe Lys Glu Asp Pro Arg Ser Asp Lys Val Asn Leu Ser
224 20 25 30
227 Ile Gly Leu Tyr Tyr Asn Glu Asp Gly Ile Ile Pro Gln Leu Gln Ala
228 35 40 45
231 Val Ala Glu Ala Glu Ala Arg Leu Asn Ala Gln Pro His Gly Ala Ser
232 50 55 60
235 Leu Tyr Leu Pro Met Glu Gly Leu Asn Cys Tyr Arg His Ala Ile Ala
236 65 70 75 80
239 Ser Leu Leu Phe Gly Ala Asp His Pro Val Leu Lys Gln Gln Arg Val
240 85 90 95
243 Ala Thr Ile Gln Thr Leu Gly Gly Ser Gly Ala Leu Lys Val Gly Ala
244 100 105 110
247 Asp Phe Leu Lys Arg Tyr Phe Pro Glu Ser Gly Val Trp Val Ser Asp
248 115 120 125
251 Pro Thr Trp Glu Asn His Ala Ala Ile Phe Ala Gly Ala Gly Phe Glu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/895,041C

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TIME: 10:32:23

Input Set : A:\AP09895041JUN1003.txt
Output Set: N:\CRF4\06192003\I895041C.raw

```
752     130                 135                 140
755 Val Ser Thr Tyr Pro Trp Tyr Asp Glu Ala Thr Asn Gly Val Arg Phe
756 145                 150                 155                 160
759 Asn Asp Leu Leu Ala Thr Leu Lys Thr Leu Pro Ala Arg Ser Ile Val
760                 165                 170                 175
763 Leu Leu His Pro Cys Cys His Asn Pro Thr Gly Ala Asp Leu Thr Asn
764                 180                 185                 190
767 Asp Gln Trp Asp Ala Val Ile Glu Ile Leu Lys Ala Arg Glu Leu Ile
768         195                 200                 205
771 Pro Phe Leu Asp Ile Ala Tyr Gln Gly Phe Gly Ala Gly Met Glu Glu
772     210                 215                 220
775 Asp Ala Tyr Ala Ile Arg Ala Ile Ala Ser Ala Gly Leu Pro Ala Leu
776 225                 230                 235                 240
779 Val Ser Asn Ser Phe Ser Lys Ile Phe Ser Leu Tyr Gly Glu Arg Val
780                 245                 250                 255
783 Gly Gly Leu Ser Val Met Cys Glu Asp Ala Glu Ala Ala Gly Arg Val
784             260                 265                 270
787 Leu Gly Gln Leu Lys Ala Thr Val Arg Arg Asn Tyr Ser Ser Pro Pro
788         275                 280                 285
791 Asn Phe Gly Ala Gln Val Val Ala Ala Val Leu Asn Glu Glu Ala Leu
792     290                 295                 300
795 Lys Ala Ser Trp Leu Ala Glu Val Glu Glu Met Arg Thr Arg Ile Leu
796 305                 310                 315                 320
799 Ala Met Arg Gln Glu Leu Val Lys Val Leu Ser Thr Glu Met Pro Glu
800                 325                 330                 335
803 Arg Asn Phe Asp Tyr Leu Leu Asn Gln Arg Gly Met Phe Ser Tyr Thr
804             340                 345                 350
807 Gly Leu Ser Ala Ala Gln Val Asp Arg Leu Arg Glu Glu Phe Gly Val
808         355                 360                 365
811 Tyr Leu Ile Ala Ser Gly Arg Met Cys Val Ala Gly Leu Asn Thr Ala
812     370                 375                 380
815 Asn Val Gln Arg Val Ala Lys Ala Phe Ala Ala Val Met
816 385                 390                 395
819 <210> SEQ ID NO: 11
820 <211> LENGTH: 397
821 <212> TYPE: PRT
822 <213> ORGANISM: Escherichia coli
824 <400> SEQUENCE: 11
826 Met Phe Gln Lys Val Asp Ala Tyr Ala Gly Asp Pro Ile Leu Thr Leu
827 1               5                   10                  15
830 Met Glu Arg Phe Lys Glu Asp Pro Arg Ser Asp Lys Val Asn Leu Ser
831             20                  25                  30
834 Ile Gly Leu Tyr Tyr Asn Glu Asp Gly Ile Ile Pro Gln Leu Gln Ala
835         35                  40                  45
838 Val Ala Glu Ala Glu Ala Arg Leu Asn Ala Gln Pro His Gly Ala Ser
839     50                  55                  60
842 Leu Tyr Leu Pro Met Glu Gly Leu Asn Cys Tyr Arg His Ala Ile Ala
843 65                  70                  75                  80
846 Pro Leu Leu Phe Gly Ala Asp His Pro Val Leu Lys Gln Gln Arg Val
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/895,041C

DATE: 06/19/2003
TIME: 10:32:23

Input Set : A:\AP09895041JUN1003.txt
Output Set: N:\CRF4\06192003\I895041C.raw

```
347                 85                  90                  95
350 Ala Thr Ile Gln Thr Leu Gly Gly Ser Gly Ala Leu Lys Val Gly Ala
351             100                 105                 110
354 Asp Phe Leu Lys Arg Tyr Phe Pro Glu Ser Gly Val Trp Val Ser Asp
355         115                 120                 125
358 Pro Thr Trp Glu Asn His Val Ala Ile Phe Ala Gly Ala Gly Phe Glu
359     130                 135                 140
362 Val Ser Thr Tyr Pro Trp Tyr Asp Glu Ala Thr Asn Gly Val Arg Phe
363 145                 150                 155                 160
366 Asn Asp Leu Leu Ala Thr Leu Lys Thr Leu Pro Ala Arg Ser Ile Val
367                 165                 170                 175
370 Leu Leu His Pro Cys Cys His Asn Pro Thr Gly Ala Asp Leu Thr Asn
371             180                 185                 190
374 Asp Gln Trp Asp Ala Val Ile Glu Ile Leu Lys Ala Arg Glu Leu Ile
375         195                 200                 205
378 Pro Phe Leu Asp Ile Ala Tyr Gln Gly Phe Gly Ala Gly Met Glu Glu
379     210                 215                 220
382 Asp Ala Tyr Ala Ile Arg Ala Ile Ala Ser Ala Gly Leu Pro Ala Leu
383 225                 230                 235                 240
386 Val Ser Asn Ser Phe Ser Lys Ile Phe Ser Leu Tyr Gly Glu Arg Val
387                 245                 250                 255
390 Gly Gly Leu Ser Val Met Cys Glu Asp Ala Glu Ala Ala Gly Arg Val
391             260                 265                 270
394 Leu Gly Gln Leu Lys Ala Thr Val Arg Arg Asn Tyr Ser Ser Pro Pro
395         275                 280                 285
398 Asn Phe Gly Ala Gln Val Val Ala Ala Val Leu Asn Asp Glu Ala Leu
399     290                 295                 300
402 Lys Ala Ser Trp Leu Ala Glu Val Glu Glu Met Arg Thr Arg Ile Leu
403 305                 310                 315                 320
406 Ala Met Arg Gln Glu Leu Val Lys Val Leu Ser Thr Glu Met Pro Glu
407                 325                 330                 335
410 Arg Asn Phe Asp Tyr Leu Leu Asn Gln Arg Gly Met Phe Ser Tyr Thr
411             340                 345                 350
414 Gly Leu Ser Ala Ala Gln Val Asp Arg Leu Arg Glu Glu Phe Gly Val
415         355                 360                 365
418 Tyr Leu Ile Ala Ser Gly Arg Met Cys Val Pro Gly Leu Asn Thr Ala
419     370                 375                 380
422 Asn Val Gln Arg Val Ala Lys Ala Phe Ala Ala Val Met
423 385                 390                 395
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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/895,041C

DATE: 06/19/2003
TIME: 10:32:24

Input Set : A:\AP09895041JUN1003.txt
Output Set: N:\CRF4\06192003\I895041C.raw